

Assessing Bat and Bird Movements and Mortality Relative to Wind Turbines

March 2011

Fact Sheet

The Issue

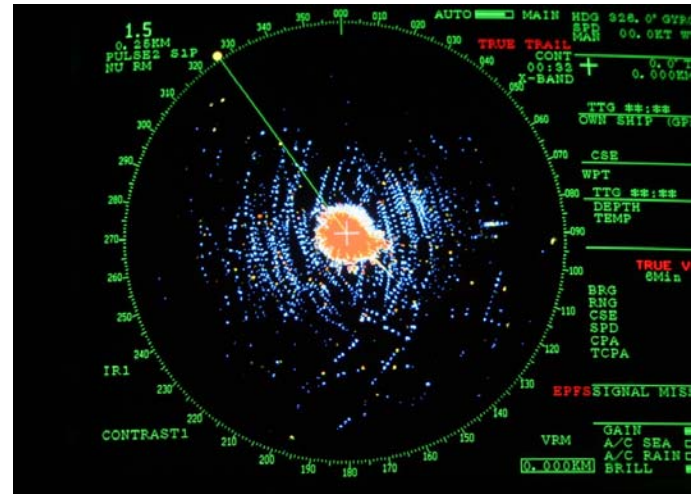
As wind energy development continues throughout California and the nation, bird and bat fatalities due to collisions with wind turbines remains an environmental and regulatory issue. Because many of the factors that underlie bird and bat collisions with wind turbines remain poorly understood, regulators and developers have difficulty implementing effective mitigation measures for wind energy projects.

Project Description

This two-year project assesses the nocturnal survey techniques currently used for estimating bird and bat activity at wind energy sites. Radar, acoustic monitoring, and night vision equipment will be compared to determine the best methods for estimating the relative passage rates and the species composition of nocturnal birds and bats during the fall migratory period in Yolo County.

Bird and bat mortality searches will be conducted daily in conjunction with the radar, acoustic, and visual surveys to compare the effectiveness of the monitoring techniques.

Data will be analyzed for spatial, temporal, and weather patterns related to bird and bat activity and mortality. The final report will include the results and conclusions of the study with recommendations for monitoring birds and bats at wind energy resource areas. The relationships



Radar tracking data showing bird flights

Image source: H.T. Harvey and Associates

between mortality, passage rates, spatial, temporal, and weather patterns will be reported and discussed.

Research Benefits

The project's objective is to increase knowledge of the factors that influence bird and bat mortality at wind energy facilities and to employ the most effective survey techniques during the development of wind energy facilities, which could lead to fewer bird and bat deaths at wind facilities.

This research helps achieve the state energy policy to expand renewable energy resources, such as wind, to meet state energy demand. Research results will be used by planning agencies to recommend the most effective mitigation for new wind energy projects.

Project Specifics

Grant Agreement Number: PIR-08-027

Recipient: H.T. Harvey and Associates

City/County: Los Gatos, Santa Clara County

Assembly District: 21

Senate District: 15

Application: Nationwide

Amount: \$732,411

Term: 8/4/2009 – 6/28/2013

Project Field Site: Montezuma Hills, Yolo Co., CA

For more information, please contact:

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